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(54) IRON ALUMINIDE BASED SINTERED ALLOY HAVING SMALL  
ATTACKABILITY AGAINST OTHER MEMBER AND EXCELLENT MACHINABILITY,  
AND ITS PRODUCTION METHOD

(57)Abstract:

PROBLEM TO BE SOLVED: To provide an iron aluminide based sintered alloy having small attackability against the other member and excellent machinability while maintaining wear resistance and to provide its production method.

SOLUTION: This iron aluminide based sintered alloy has a componential composition containing 5 to 35% Al and 0.7 to 3% C, and the balance Fe with inevitable impurities. The alloy has a structure where three phases composed of an iron aluminide phase 1 consisting of Fe

and Al, an Fe-C phase 2 consisting of Fe and C and a C phase 3 are coexistent. In its production method, a green compact is subjected to energizing press forming so as to be energized in a short time and simultaneously be pressurized.

